

Notice of Allowability	Application No.	Applicant(s)	
	09/995,506	ZHANG, FRANKLIN ZHIGANG	
	Examiner	Art Unit	
	TUAN A. PHAM	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed on 10/12/2006.
2. ☒ The allowed claim(s) is/are 21-25.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 60/253,205.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|---|

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Franklin Zhang on 11/20/2006.

3. The application has been amended as follows:

Claim 21 has been changed as follows:

-- 21. A point-to-point redundant fixed wireless network link comprising:
two dual-channel redundant fixed wireless network link (RFWL) devices,
two computer networks,
wherein the RFWL device having two separate wireless networking radio
units that can communicate with remote corresponding wireless networking radios
forming a wireless networking sub-link via antenna means,
wherein the RFWL device having one wired network interface for
connecting to wired computer network,
wherein the RFWL device having running redundant communication

features means for communicating with remote RFWL device wirelessly,

wherein one RFWL device operating as redundant wireless networking
Service Equipment (SE),

wherein other one RFWL device operating as redundant wireless
networking Client Equipment (CE),

wherein said SE and said CE each having wired networking port connecting to
each one of said two computer networks,

wherein said SE and said CE communicating to each other via antenna means
forming a redundant wireless networking link,

wherein said SE having two of its wireless networking radio units working
simultaneously,

wherein said CE having one of its wireless networking radio units communicating
with the said SE via a primary link, the other one of its wireless networking radio units
working at a redundant link and will automatically switch to communication with said SE
if the primary link fails, and whereby said two computer networks communicating to
each other wirelessly and redundantly via said redundant wireless networking link. —

Claim 22 has been changed as follows:

-- 22. The point-to-point redundant fixed wireless network link of claim 21,
wherein said RFWL device comprising two different types of wireless networking
radios. —

Claim 23 has been changed as follows:

– 23. The point-to-point redundant fixed wireless network link of claim 21, wherein said RFWL device comprising two same type of wireless networking radios with antenna isolation means. --

Claim 24 has been changed as follows:

-- 24. A method of redundant fixed wireless networking link, comprising:
providing first dual-channel redundant fixed wireless network link device operating as Service Equipment (SE) with antenna means, wherein said SE comprising two wireless networking radio units and one wired networking interface,
providing second dual-channel redundant fixed wireless network link device operating as Client Equipment (CE), with antenna means, wherein said CE comprising two wireless networking radio units and one wired networking interface,
providing first computer network connection to wired networking port of said SE,
providing second computer network connection to wired networking port of said CE,
setting said SE ready to communicate with two wireless networking channels to remote said CE,
setting up said CE to communicate with said SE in one channel forming one primary link.
running link quality monitoring function means in CE when link quality

monitoring system detects the link quality of said primary link is below requirement or failed, and

automatically switch to a redundant link for communicating with said SE, communicating said CE continually with said SE, keeping said first and second computer network communicating with each other continually via said SE and said CE. --

Claim 25 has been changed as follows:

-- 25. A point-to-multi-point dual-channel redundant fixed wireless network comprising:

a plurality of dual-channel redundant fixed wireless network link (RFWL) devices,

a plurality of computer networks,

wherein the RFWL device having two separate wireless networking radio units that can communicate with remote corresponding wireless networking radios forming a wireless networking sub-link via antenna means,

wherein the RFWL device having one wired network interface for connecting to wired computer network,

wherein the RFWL device having running redundant communication features means for communicating with remote RFWL device wirelessly,

wherein the first one of said a plurality of RFWL device operating as redundant wireless networking Service Equipment (SE),

wherein the rest of said a plurality of RFWL devices operating as redundant wireless networking Client Equipments (CEs),

whereby said SE is connecting with first computer network of said a plurality of computer networks with its wired network interface,

whereby said a plurality of CEs are connecting to the rest of said a plurality of computer networks with each corresponding wired network interface,

wherein said SE is wirelessly and redundantly communicating with said plurality of CEs remotely forming one point-to-multi-point dual-channel redundant wireless network,

wherein said CE having one of its wireless networking radio units communicating with said SE via a primary channel, the other one of its wireless networking radio units working at a redundant channel and will automatically switch to communication with said SE if the primary channel fails, and whereby said first computer network communicating with the rest of said plurality of computer networks via said point-to-multi-point dual channel redundant wireless network formed by the corresponding communicating SE and CEs. --

(End of Amendment)

REASONS FOR ALLOWANCE

4. Claims 21-25 are allowed over the prior art of record.
5. The following is an examiner's statement of reasons for allowance:

The applicant's Remarks, filed on 10/12/2006, have been carefully reviewed with update search. Consequently, reasons for allowance of claims 21-25 are set forth in the following.

Regarding claims 21, 24, and 25, the prior art made of record fails to clearly teach or fairly suggest the feature of a point to point or a point to multi point redundant fixed wireless network link wherein said CE having one of its wireless networking radio units communicating with said SE via a primary channel, the other one of its wireless networking radio units working at a redundant channel and will automatically switch to communication with said SE if the primary channel fails, and whereby said first computer network communicating with the rest of said plurality of computer networks via said point-to-multi-point dual channel redundant wireless network formed by the corresponding communicating SE and CEs, in combination with other limitations, as specified in the independent claims 21, 24, and 25, and further limitations of their respective dependent claims 22-23.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2618
November 21, 2006
Examiner

Tuan Pham

Supervisory Patent Examiner
Technology Center 2600

Matthew Anderson